

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicants thank the Examiner for carefully considering this application, and for accepting the drawings filed on April 14, 2004.

Disposition of the Claims

Claims 1-32 are pending in the application. Claims 1, 17, and 32 are independent. The remaining claims depend, directly or indirectly, from independent claims 1, 17, and 32.

Claim Amendments

Claims 1, 7, 8, 12, 15-17, 22, and 31-32 have been amended to clarify aspects of the invention. Support for these amendments may be found, for example, in paragraphs [0022], [0029], [0037], [0041]-[0047] and Figs. 4-5 of the originally filed specification, and in the originally filed claims. No new matter has been added by these amendments.

Rejections under 35 U.S.C. § 101

Claims 1-30 and 32 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Specifically, the Examiner contends that claims 1-16 are non-statutory because these claims are directed to steps that do not define a machine or computer implemented process. See Office Action dated February 4, 2009 (“Office Action”), p. 2. Further, the Examiner contends that claims 17-30 and 32 are non-statutory because these claims recite systems comprising software

alone. *See Office Action*, pp. 2-3. To the extent the rejection may apply to the pending claims, these rejections are traversed.

Applicants have amended independent claim 1 in this reply to recite a method of managing resources of a computer system, as suggested by the Examiner. *See Office Action*, p. 2. Thus, amended independent claim 1 satisfies satisfy the requirements of 35 U.S.C. § 101. Further, dependent claims 2-16 satisfy the requirements of 35 U.S.C. § 101 for at least the same reasons as independent claim 1.

Applicants have amended independent claims 17 and 32 in this reply to recite systems which each include a plurality of sets of processors. In other words, independent claims 17 and 32 are each directed to a machine, which qualifies as statutory subject matter under 35 U.S.C. § 101¹. Dependent claims 18-31 satisfy the requirements of 35 U.S.C. § 101 for at least the same reasons as independent claim 17.

For the above reasons, claims 1-30 and 32 satisfy the requirements of 35 U.S.C. § 101. Accordingly, withdrawal is respectfully requested.

Rejections under 35 U.S.C. § 112

Claims 1-16 and 21-22 stand rejected under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. *See Office Action*, pp. 3-4. To the extent the rejection may apply to the pending claims, the rejection is traversed.

¹ "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title" 35 U.S.C. § 101.

Claim 15 is amended by this reply to address the issue of antecedent basis described in 8 (a) (i), as listed in page 3 of the Office Action. Additionally, claims 1, 7, 9, 12, and 22 have been amended to clarify the claim language described in 8 (b) (i-vi), as listed in page 4 of the Office Action. Regarding claims 2-6, 8, 10-11, 13-14, 16, and 21, the Examiner does not provide any reason for rejecting these claims under 35 U.S.C. § 112. Accordingly, Applicants assume that the Examiner mistakenly rejected claims 2-6, 8, 10-11, 13-14, 16, and 21 under 35 U.S.C. § 112. In the event that the Examiner intended to rejection claims 2-6, 8, 10-11, 13-14, 16, and 21 under 35 U.S.C. § 112, Applicants request the Examiner to provide a detailed basis for such rejections.

For the above reasons, claims 1-16 and 21-22 are believed to comply with the requirements of 35 U.S.C. § 112. Accordingly, withdrawal is respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 1-5, 7-8, 11, 16-21, 29, and 31-32

Claims 1-5, 7-8, 11, 16-21, 29, and 31-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent Pub. No. 2003/0037092 (“McCarthy”). To the extent the rejection applies to the pending claims, the rejection is respectfully traversed.

35 U.S.C. § 103 provides the statutory definition of obviousness. The framework for applying 35 U.S.C. § 103 was initially set out by the Supreme Court in *Graham v. John Deere Co.*, 86 S.Ct. 684 (1966). This framework was reaffirmed by the court in *KSR Intern. Co. v. Teleflex Inc.* 127 S.Ct. 1727, 1734 (2007). Based on the above framework, one rationale that may be used to support a conclusion of obviousness is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no

change in their respective functions, and the combination yielded nothing more than predictable results to one of ordinary skill in the art. *See KSR*, 127 S.Ct. at 1739. In the instant case, the Examiner, in articulating the analysis used to reject the claims under 35 U.S.C. § 103, has used the above rationale to support a rejection of obviousness in view of McCarthy. *See Office Action*, p. 5-11.

Applicants submit that the Examiner has incorrectly characterized the cited references. As such, the Examiner has failed satisfy the requirements of the aforementioned rationale (namely, that all elements were known in the prior art) to establish a *prima facie* case of obviousness of the present claims. Further, Applicants submit that combination proposed by the Examiner is improper, as it would alter the principle of operation of at least one prior art reference. For at least these reasons, Applicant requests withdrawal of the rejection of the present claims.

Turning to the claims, the amended independent claim 1 requires, in part, (i) a resource pool associated to a set of processors, (ii) a container residing in the resource pool, and (iii) determining whether a portion of a resource allocated to the container does not exceed a portion of the resource allocated to the resource pool. Amended independent claims 17 and 32 have similar requirements to the aforementioned requirements of amended independent claim 1.

Turning to the rejection, the Examiner contends that the independent claims are obvious in light of McCarthy. *See Office Action*, p.5. Specifically, the Examiner asserts that the recited *container* is taught by McCarthy, paragraphs [0025]-[0026]. Further, the Examiner asserts that the recited *resource pool* is taught by McCarthy, paragraph [0049]. *See Id.*

Applicants respectfully disagree with the Examiner's contentions. Paragraphs [0025]-[0026] of McCarthy describe partitions which "may have different amounts of resources." *See McCarthy*,

paragraphs [0025]-[0026]. Thus, the Examiner apparently contends that the partitions of McCarthy are equivalent to the recited *containers*. Paragraph [0049] of McCarthy describes Fig. 4B, which illustrates various cycles of allocations of resources to five different partitions (as shown in columns 408 to 415 of Fig. 4B). *See McCarthy, Fig. 4B and paragraphs [0049]-[0052]*. However, paragraph [0049] of McCarthy, while coincidentally mentioning resources, is silent with regard to any resource pools. In particular, McCarthy clearly fails to disclose or render obvious *a resource pool associated to a set of processors* (*i.e.*, requirement (*i*) stated above). Thus, it follows logically that McCarthy also fails to disclose or render obvious *a container residing in the resource pool*, and *determining whether a portion of a resource allocated to the container does not exceed a portion of the resource allocated to the resource pool* (*i.e.*, requirements (*ii*) and (*iii*) stated above). Accordingly, McCarthy fails to establish a *prima facie* case of obviousness for amended independent claims 1, 17, and 32.

In view of the above, amended independent claims 1, 17, and 32 are patentable over McCarthy. Further, claims depending from amended independent claims 1, 17, and 32 are also allowable for at least the same reasons. Accordingly, withdrawal of the rejection is respectfully requested.

Claim 6

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over McCarthy in view of US Patent Pub. No. 2005/0091346 (“Krishnaswami”). To the extent the rejection applies to the pending claims, the rejection is respectfully traversed.

As discussed above, McCarthy does not disclose or render obvious amended independent claim 1. Further, Krishnaswami does not disclose or otherwise provide that which McCarthy lacks. Specifically, Krishnaswami, like McCarthy, is also silent with regard to the requirements *(i)-(iii)* of claim 1 (listed above). Thus, amended independent claim 1 is also patentable over McCarthy and Krishnaswami. Claim 6 depends from independent claim 1, and thus is patentable over the cited art for at least the same reasons. Accordingly, for at least the above reasons, withdrawal of this rejection is respectfully requested.

Claim 9

Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over McCarthy in view of US Patent Pub. No. 2004/0158834 (“Ham”). To the extent the rejection applies to the pending claims, the rejection is respectfully traversed.

As discussed above, McCarthy does not disclose or render obvious amended independent claim 1. Further, Ham does not disclose or otherwise provide that which McCarthy lacks. Specifically, Ham, like McCarthy, is also silent with regard to the requirements *(i)-(iii)* of claim 1 (listed above). Thus, amended independent claim 1 is also patentable over McCarthy and Ham. Claim 9 depends, either directly or indirectly, from independent claim 1, and thus is patentable over the cited art for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Claim 10

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over McCarthy in view of Ham and US Patent No. 6,609,213 (“Nguyen”). To the extent the rejection applies to the pending claims, the rejection is respectfully traversed.

As discussed above, McCarthy and Ham do not disclose or render obvious amended independent claim 1. Further, Nguyen does not disclose or otherwise provide that which McCarthy and Ham lack. Specifically, Nguyen, like McCarthy, is also silent with regard to the requirements (i)-(iii) of claim 1 (listed above). Thus, amended independent claim 1 is also patentable over McCarthy, Ham, and Nguyen. Claim 10 depends, either directly or indirectly, from independent claim 1, and thus is patentable over the cited art for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 12, 14, 22, and 28

Claims 12, 14, 22, and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McCarthy in view of US Patent No. 6,799,208 (“Sankaranarayan”). To the extent the rejection applies to the pending claims, the rejection is respectfully traversed.

As discussed above, McCarthy does not disclose or render obvious amended independent claims 1 and 17. Further, Sankaranarayan does not disclose or otherwise provide that which McCarthy lacks. Specifically, Sankaranarayan, like McCarthy, is also silent with regard to the requirements (i)-(iii) of claims 1 and 17 (listed above). Thus, amended independent claims 1 and 17 are also patentable over McCarthy and Sankaranarayan. Claims 12, 14, 22, and 28 depend, either

directly or indirectly, from independent claims 1 and 17, and thus are patentable over the cited art for at least the same reasons.

Claim 13

Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over McCarthy in view of US Patent No. 6,578,141 (“Kelly”), US Patent No. 7,412,514 (“Shuster”), and US Patent No. 7,117,371 (“Parthasarathy”). To the extent the rejection applies to the pending claims, the rejection is respectfully traversed.

As discussed above, McCarthy does not disclose or render obvious amended independent claim 1. Further, Kelly, Shuster, and Parthasarathy, whether viewed separately or in combination, do not disclose or otherwise provide that which McCarthy lacks. Specifically, Kelly, Shuster, and Parthasarathy, like McCarthy, are also silent with regard to the requirements *(i)-(iii)* of claim 1 (listed above). Thus, amended independent claim 1 is also patentable over McCarthy, Kelly, Shuster, and Parthasarathy. Claim 13 depends, either directly or indirectly, from independent claim 1, and thus is patentable over the cited art for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Claim 15

Claim 15 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over McCarthy in view of Kelly, Shuster, Parthasarathy, and US Patent No. 7,150,020 (“Malhour”). To the extent the rejection applies to the pending claims, the rejection is respectfully traversed.

As discussed above, McCarthy, Kelly, Shuster, and Parthasarathy, whether viewed separately or in combination, do not disclose or render obvious amended independent claim 1. Further, Malhour does not disclose or otherwise provide that which McCarthy, Kelly, Shuster, and Parthasarathy lack. Specifically, Malhour, like McCarthy, is also silent with regard to the requirements (i)-(iii) of claim 1 (listed above). Thus, amended independent claim 1 is also patentable over McCarthy, Kelly, Shuster, Parthasarathy, and Malhour. Claim 15 depends, either directly or indirectly, from independent claim 1, and thus is patentable over the cited art for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Claim 30

Claim 30 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over McCarthy in view of Shuster. To the extent the rejection applies to the pending claims, the rejection is respectfully traversed.

As discussed above, McCarthy does not disclose or render obvious amended independent claim 17. Further, Shuster does not disclose or otherwise provide that which McCarthy lacks. Specifically, Shuster, like McCarthy, is also silent with regard to the requirements (i)-(iii) of claim 17 (listed above). Thus, amended independent claim 17 is also patentable over McCarthy and Shuster. Claim 30 depends, either directly or indirectly, from independent claim 17, and thus is patentable over the cited art for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 23-26

Claims 23-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McCarthy in view of Malhour. To the extent the rejection applies to the pending claims, the rejection is respectfully traversed.

As discussed above, McCarthy does not disclose or render obvious amended independent claim 17. Further, Malhour does not disclose or otherwise provide that which McCarthy lacks. Specifically, Malhour, like McCarthy, is also silent with regard to the requirements *(i)-(iii)* of claim 17 (listed above). Thus, amended independent claim 17 is also patentable over McCarthy and Malhour. Claims 23-26 depend, either directly or indirectly, from independent claim 17, and thus are patentable over the cited art for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Claim 27

Claim 27 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over McCarthy in view of Malhour and Krishnaswami. To the extent the rejection applies to the pending claims, the rejection is respectfully traversed.

As discussed above, McCarthy and Malhour, whether viewed separately or in combination, do not disclose or render obvious amended independent claim 17. Further, Krishnaswami does not disclose or otherwise provide that which McCarthy and Malhour lack. Specifically, Krishnaswami, like McCarthy, is also silent with regard to the requirements *(i)-(iii)* of claim 17 (listed above). Thus, amended independent claim 17 is also patentable over McCarthy, Malhour, and

Krishnaswami. Claim 27 depends, either directly or indirectly, from independent claim 17, and thus is patentable over the cited art for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusion

Applicants believe this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 03226/432001; SUN040758).

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Respectfully submitted,

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